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EXAMINER'S AMENDMENT

36/1/1

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Chong Mrs Esther on 3-20-03 and Mr. Scott Lowe on 3-27-03

The application has been amended as follows:

- 1- Claims 33, 37, 38, 39, 43, 44, 45, 46 have been amended as follows.
- 2- New claims 47-51 have been added as follows.
- 3- Claims 5, 6, 34, 35, 36, 40, 41, 42 remains unchanged as follows

*(This Amend. was filed 4-8-03)
Please Enter This Ex. Amend (if not Entered yet)
A.N.
4-4-06*

5. An optical disc comprising:

a main area storing digital data, said main area being divided into a plurality of zones; and

a spare area having an area within each of said zones of said main area,

wherein at least one area of said spare area varies in size relative to at least one other area of said spare area, wherein said optical disc is divided into 23 zones, and the rates of said spare areas are set such that zone 0 is to 10.73%, zone 1 is to 10.75%, zones 2 and 3 are to 8.06%, zones 4 and 5 are to 5.37%, zones 6 and 7 are to 2.68%, zones 8 to 12 are to 2.69%, zones 13 to 15 are to 2.68%, zones 16 and 17 are to 2.69%, zones 18 and 19 are to 5.37%, zone 20 is to 8.06%, zone 21 is to 8.05%, zone 22 is to 10.74%, and zone 23 is to 10.73%.

6. An optical disc comprising:

a main area storing digital data, said main area being divided into a plurality of zones; and

a spare area having an area within each of said zones of said main area,

wherein at least one area of said spare area varies in size relative to at least one other area of said spare area, wherein said optical disc is divided into 23 zones, and the rates of said spare areas are set such that

zone 0 is to 8.05%, zones 1 to 3 are to 8.06%, zones 4 and 5 are to 5.37%, zones 6 and 7 are to 2.68%, zones 8 to 12 are to 2.69%, zones 13 to 15 are to 2.68%, zones 16 to 18 are to 5.37%, zones 19 and 20 are to 8.05%, zones 21 and 22 are to 8.05%, and zone 23 is to 8.72%.

33. An optical disk, comprising:

a series of several main areas and arranged to store digital data;

and

a series of contiguous spare areas, each main area corresponding to a respective single one of the contiguous spare areas, a ratio between a size of each main area to a size of a corresponding contiguous spare area being varied, wherein the ratio of the size of the spare areas to the size of the corresponding main areas increases from a substantially central radial position on the disk toward at least one of an inner radial position on the disk and an outer radial position on the disk.

34. The optical disk of claim 33, wherein each of the contiguous spare areas is positioned adjacent to a corresponding one of the series of main areas.

35. The optical disk of claim 33, wherein the ratio between the size of a spare area and the size of a corresponding main area depends upon a thickness of the disk at the position of the main area.

36. The optical disk of claim 33, wherein the ratio between the size of a spare area and the size of a corresponding main area depends upon a radial position of the main area on the disk.

37. The optical disk of claim 33, wherein the ratio of the size of the spare areas to the size of the corresponding main areas increases from the substantially central radial position on the disk toward the [in
an] inner radial position on [direction of] the disk.

38. The optical disk of claim 33, wherein the ratio of the size of the spare areas to the size of the corresponding main areas increases from the substantially central radial position on the disk toward the [in
an] outer radial position on [direction of] the disk.

39. A method for setting spare areas of corresponding main zones of an optical disk, said method comprising:

configuring an optical disk with a series of several main areas structured and arranged to store digital data, each main area having a single contiguous spare area associated therewith; and

variably setting a ratio between a size of each contiguous spare area to a size of each main area associated therewith, wherein the ratio of the size of the spare areas to the size of the corresponding main areas

increases from a substantially central radial position on the disk toward at least one of an inner radial position on the disk and an outer radial position on the disk.

40. The method of claim 39, wherein each of the contiguous spare areas is positioned adjacent to a corresponding one of the series of main areas.

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41. The method of claim 39, wherein the ratio between the size of a spare area and the size of a corresponding main area depends upon a thickness of the disk at the position of the main area.

42. The method of claim 39, wherein the ratio between the size of a spare area and the size of a corresponding main area depends upon a radial position of the main area on the disk.

43. The method of claim 39, wherein the ratio of the size of the spare areas to the size of the corresponding main areas increases from the substantially central radial position on the disk toward the [in an] inner radial position on [direction of] the disk.

44. The method of claim 39, wherein the ratio of the size of the spare areas to the size of the corresponding main areas increases from

the substantially central radial position on the disk toward the [in an]
outer radial position on [direction of] the disk.

45. An optical disk, comprising:

a plurality of concentric zones, each zone including at least one main area for storing data and at least one spare area for storing data when the main area includes a defect, each zone having a spare area ratio equal to a ratio of a total size of spare [main] areas in the zone to a total size of main [spare] areas in the zone, [and the spare area ratios of at least two zones differing] wherein the spare area ratio increases from a substantially central radial position on the disk toward at least one of an inner radial position on the disk and an outer radial position on the disk.

46. The optical disk of claim 45 [46], wherein the spare area ratios of at least two adjacent zones differ.

Please add the following claims:

47. The optical disk of claim 33, wherein the ratio of the size of the spare areas to the size of the corresponding main areas increases from the substantially central radial position on the optical disk toward the inner radial position on the disk and toward the outer radial position on the disk.

48. The method of claim 39, wherein the ratio of the size of the spare areas to the size of the corresponding main areas increases from the substantially central radial position on the optical disk toward the inner radial position on the disk and toward the outer radial position on the disk.

49. The optical disk of claim 45, wherein the spare are ratio increases from the substantially central radial position on the disk toward the inner radial position on the disk.

50. The optical disk of claim 45, wherein the spare are ratio increases from the substantially central radial position on the disk toward the outer radial position on the disk.

51. The optical disk of claim 45, wherein the spare area ratio increases from the substantially central radial position on the optical disk toward the inner radial position on the disk and toward the outer radial position on the disk.

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Allowable Subject Matter

Claims 5, 6, 33-51 are allowable over the prior art of record.

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **ALI NEYZARI** whose telephone number is **703-308-4906**. The examiner can normally be reached on **MONDAY-THURSDAY** from **7:00 AM** to **5:30 PM**.

The Fax number for TC 2600 is **703-872-9314**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is **703-305-4700**.

Ali Neyzari
Primary Patent Examiner
Art Unit 2655
3-27-2003


ALI NEYZARI
PRIMARY EXAMINER